HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

Docket No.: 10992091-1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Clifford A. McCarthy et al.

Application No.: 09/493,753   Confirmation No.: 2627

Filed: January 28, 2000   Art Unit: 2195

For: DYNAMIC MANAGEMENT OF COMPUTER   Examiner: K. Tang
      WORKLOADS THOUGH SERVICE LEVEL
      OPTIMIZATION

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under § 41.37(a), this brief is filed within two months of the Notice of

Appeal filed in this case on February 21, 2006, and is in furtherance of said Notice of Appeal.

The fees required under § 41.20(b)(2) are dealt with in the accompanying

TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R.

§ 41.37 and M.P.E.P. § 1206:

I.	Real Party In Interest
II	Related Appeals and Interferences
III.	Status of Claims
IV.	Status of Amendments
V.	Summary of Claimed Subject Matter
VI.	Grounds of Rejection to be Reviewed on Appeal
VII.	Argument
VIII.	Claims

I.   REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Hewlett-Packard Development Company, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas.

II.   RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III.   STATUS OF CLAIMS

A.   Total Number of Claims in Application

There are 20 claims pending in application.

B.   Current Status of Claims

1.   Claims canceled: None

2.   Claims withdrawn from consideration but not canceled: None

3.   Claims pending:

4.   Claims allowed: None

5.   Claims rejected: 1, 2, 5-13 and 16-20

6.   Claims objected to as being dependent from a rejected base claim: 3-4 and 14-15

C.   Claims On Appeal

The claims on appeal are claims: 1, 2, 5-13 and 16-20

IV.   STATUS OF AMENDMENTS

Appellant did not amend the claims in response to the Final Office Action dated October 6, 2005. Appellant last amended the claims in the Amendment filed December 27, 2004.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter relates to a system for allocation of computer resources among applications operating on a computer. According to claim 1, the system comprises a calculator that determines an allocation request value using a proportional factor, an integral factor, and a derivative factor (page 10, lines 3-6, Figure 3 element 24), wherein the factors are calculated from the at least one user-defined goal (page 8, lines 3-12, Figures 2 and 3, element 21) and the performance information (page 8, lines 18-20, Figure 2, element 23). The system also comprises an arbiter (page 12, lines 15-24, Figure 3, element 26) that is operative to adjust the allocation request value into an adjusted allocation value when the allocation request value and allocation request values associated with other applications exceeds a predetermined value (page 13, line 21 through page 14, line 10, Figure 8, elements 810-814).

According to claim 2, the proportional factor includes a proportional constant (page 10, line 8 (KP)) and a proportional variable (page 10, line 10 (V_i)), wherein the proportional constant is a user-selectable input (page 10, lines 24-29), and the proportional variable is determined from the at least one user-defined goal and the performance information (page 10, line 10). According to claim 2, the integral factor includes a integral constant (page 11, line 5) and a integral variable (page 11, lines 4-12), wherein the integral constant is a user-selectable input (page 11, lines 14-15), and the integral variable is determined from the at least one user-defined goal and the performance information (page 11, lines 4-12). Further according to claim 2, the derivative factor includes a derivative constant (page 11, line 24) and a derivative variable (page 11, lines 23-29), wherein the derivative constant is a user-selectable input (page 12, lines 5-9), and the derivative variable is determined from the at least one user-defined goal and the performance information (page 11, lines 23-29).

The claimed subject matter also relates to a computer program for managing allocation of computer resources among applications operating on a computer. According to claim 12, the computer program comprises code for determining an allocation request value using a proportional factor, an integral factor, and a derivative factor (page 10, lines 3-6, Figure 3, element 24), wherein the factors are calculated from the at least one user-defined goal (page 8, lines 3-12, Figures 2 and 3, element 21) and the performance information (page 8, lines 18-20, Figure 2, element 23), and code for adjusting the allocation request value (page 12, lines 15-24, Figure 3, element 26), and is operative when the allocation request value and allocation request values associated with other applications exceeds a predetermined value (page 13, line 21 through page 14, line 10, Figure 8, elements 810-814).

According to claim 13, the proportional factor includes a proportional constant (page 10, line 8(KP)) and a proportional variable(page 10, line 10 (V$_i$)), wherein the proportional constant is a user selectable input (page 10, lines 24-29), and the proportional variable is determined from the at least one user-defined goal and the performance information (page 11, lines 4-12). According to claim 13, the integral factor includes a integral constant (page 11, line 5) and a integral variable (page 11, lines 4-12), wherein the integral constant is a user-selectable input (page 11, lines 14-15), and the integral variable is determined from the at least one user-defined goal and the performance information (page 11, lines 4-12). Further according to claim 2, the derivative factor includes a derivative constant (page 11, line 24) and a derivative variable (page 11, lines 23-29), wherein the derivative constant is a user-selectable input (page 12, lines 5-9), and the derivative variable is determined from the at least one user-defined goal and the performance information (page 11, lines 23-29).

The claimed subject matter also relates to a method for managing allocation of computer resources among applications operating on a computer. According to claim 18, the method comprises determining an allocation request value using a proportional factor, an integral factor, and a derivative factor (page 10, lines 3-6, Figure 3 element 24), wherein the factors are calculated from the at least one user-defined goal (page 8, lines 3-12, Figures 2 and 3, element 21) and the performance information (page 8, lines 18-20, Figure 2, element 23), and adjusting the allocation request value, when the allocation request value and allocation request values associated with other applications exceeds a predetermined value (page 13, line 21 through page 14, line 10, Figure 8, elements 810-814).

VI.   GROUNDS OF OBJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-2, 5-13, and 16-20 properly stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *A Feedback-driven Proportion Allocator for Real-Rate Scheduling*, David C. Steere et al., In Proceedings OSDI' 99, (hereinafter "Steere") in view of U.S. Patent Number 5,675,739 to Eibert et al. (hereinafter "Eibert").

VII.   ARGUMENT

Claims 1-2, 5-13, and 16-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Steere et al (hereinafter, Steere) ("A Feedback-driven Proportion Allocator for Real-Rate Scheduling") in view of U.S. Patent No. 5,675,739 (hereinafter, Eilert)..

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Without conceding the second criteria, Appellant asserts that the rejection does not satisfy the first or third criteria.

A.   Lack of Motivation

It is well established that when a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

The Appellee states that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Eilert with Steere because this would allow goals to be achieved according to the user. Final Office Action dated October 6, 2005, Page 3. However, there can be no motivation to combine references, and "it is improper to combine references where the references teach away from their combination." *In re Grasselli*, 713 F.2d 731, 734 (Fed. Cir. 1983), *see also*, M.P.E.P. § 2145(X)(D)(2). Steere teaches a system that "can assign the appropriate proportion and period to a job's thread(s),

alleviating the need for input from human experts (emphasis added)." Steere, Page 1, Column 2.

Steere's invention was designed to determine the appropriate proportion and period without any human input. However, Eilert's invention needs human input because it is designed to allocate system resources in order to achieve end-user goals. Column 1, Lines 62-67. Thus, Steere teaches away from the Appellee's combination of Steere with Eilert. Moreover, because Steere specifically teaches away from its combination with Eilert, there can be no motivation for one skilled in the art to make the combination. Therefore, the Appellee fails to establish a prima facie case of obviousness as is necessary for a proper rejection under 35 U.S.C. §103. Accordingly, Appellant respectfully request withdrawal of the 35 U.S.C. §103 rejection of record.

In response to Appellant's lack of motivation argument, the Appellee states in the Advisory Action, dated January 20, 2006, that "[f]or Steere to teach away from Eilert, Steere would have to teach that it CAN'T [emphasis original] take human input, which Steere doesn't teach. Steere teaches user interactivity on page 5, column 1." Appellant respectfully disagrees with the Appellee's contention that Steere must be incapable of human input in order to teach away from Eilert.

To determine the sufficiency of a reference's teaching, it is necessary to ascertain whether or not the reference's teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). There is nothing is Steere that would appear to be sufficient to motivate one skilled in the art to add user defined goals to the PID controller of Steere as required by the present invention. Without such sufficiency the Appellee's statement that Steere would have to teach that it's PID controller can't take human input is contrary to the relevant standard set forth in *In re Linter*.

Further, the Appellee's attempt to point to user interactivity in Steere is a misinterpretation of Steere. The Appellee's cite, page 5, column 1, is a reference to one of the types of applications the controller of Steere is designed to operate with, namely

Interactive Applications. Steere, Page 4, column 2 ("Our solution is to define suitable symbiotic interfaces for each interesting class of application, listed below"). Therefore the 'user interactivity' pointed to by the Appellee relates to the applications which are sharing the resources, not the resources management application described by Steere.

In addition to Steere teaching away from the proposed combination, it is also well established that a proposed modification cannot change the principle of operation of the prior art invention being modified. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959), *see also*, M.P.E.P. § 2143.01(VI). Steere cites as a basic principle of its operation that it "can assign the appropriate proportion and period to a job's thread(s), alleviating the need for input from human experts." Steere, Page 1. The Appellee's proposed modification would change this by requiring user interactivity in contradiction to the principles set out in *Ratti*.

For the reasons set forth above, Appellant respectfully asserts that there is no motivation to combine Steere and Eilert as proposed by the Examiner. As a result the combination put forth by the Examiner is improper and should be overturned.

B.   Lack of all Claim Limitations Claims 1, 5-8 and 10-11

Independent claim 1 recites "a calculator that determines an allocation request value using a proportional factor, an integral factor, and a derivative factor, wherein the factors are calculated from the at least one user-defined goal and the performance information, and an arbiter that is operative to adjust the allocation request value into an adjusted allocation value when the allocation request value and allocation request values associated with other applications exceeds a predetermined value." Although Steere does describe that the "individual progress pressures are then summed and passed to a . . . PID control to calculate a cumulative pressure, Q_t" there is no mention of the PID control providing an allocation request value which is then adjusted into an adjusted allocation value by an arbiter. Steere, Page 6, Column 2. As Steere only discloses the PID control calculating a cumulative pressure, Steere does not disclose, and Eilert is not relied upon as disclosing, a calculator that determines an allocation request value, as required by claim 1.

Neither does Steere disclose factors that are calculated from the at least one user-defined goal and the performance information. The Appellee admits that Steere does not

disclose this limitation, then cites to Eilert. Office action, Page 3. However, Eilert does not disclose that "the [proportional, integral, and derivative] factors are calculated from the at least one user-defined goal and the performance information." The cited passage, in Eilert, merely discusses that the invention allows "managing the performance of a work-load . . . according to end-user oriented goals." Eilert, Column 1, Lines 62-67. In fact, the invention of Eilert sets up performance classes according to the goals that are represented by a class table entry, and then calculates a performance index which is described as actual response time divided by the goal response time. Eilert, Column 3, Line 47-Column 4, Line 47. However, there is no disclosure of the goals being used as part of the calculation of the factors as required by the present invention. Thus, the combination of Eilert and Steere does not teach or suggest that "the [proportional, integral, and derivative] factors are calculated from the at least one user-defined goal and the performance information." Therefore, the combination does not teach or suggest all of the claim limitations as require for a proper rejection under 35 U.S.C. § 103(a). Accordingly, Appellant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of record.

While claims 5-8 and 10-11 contain subject matter that allows them to stand on their own, they also depend either directly or indirectly from, and inherit all of the limitations of independent claim 1, shown above to be allowable over the applied art. Therefore, claims 2 and 5-11 are asserted to be allowable, at least, because of their dependence from claim 1.

C.   Claims 12 and 16-17

Independent claim 12 recites "code for determining an allocation request value using a proportional factor, an integral factor, and a derivative factor, wherein the factors are calculated from the at least one user-defined goal and the performance information." For the reasons described above with respect to claim 1, Steere does not describe at lease these limitations.

Steere does describe that the "individual progress pressures are then summed and passed to a . . . PID control to calculate a cumulative pressure,", however Steere does not describe the PID control determining an allocation request value, nor is there mention of factors being calculated from the at least one user-defined goal. Steere, Page 6, Column 2.

As described above, Steere describes the PID control outputting a cumulative pressure. Steere is never disclosed as providing an allocation request value as required by claim 12.

Also as with claim 1, the Appellee admits that Steere does not disclose the user-defined goal limitation, then cites to Eilert. Office action, Page 3. Again, Eilert, merely discusses that the invention allows "managing the performance of a work-load . . . according to end-user oriented goals." Eilert, Column 1, Lines 62-67. However, there is no disclosure of the goals being used as part of the calculation of the factors as required by the present invention. Thus, the combination of Eilert and Steere does not teach or suggest all of the claim limitations as require for a proper rejection under 35 U.S.C. § 103(a). Accordingly, Appellant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of record.

While claims 16-17 contain subject matter that allows them to stand on their own, they also depend either directly or indirectly from, and inherit all of the limitations of independent claim 12, shown above to be allowable over the applied art. Therefore, claims 13 and 16-17 are asserted to allowable, at least, because of their dependence from claim 12.

D.   Claims 18-20

Independent claim 18 recites "determining an allocation request value using a proportional factor, an integral factor, and a derivative factor, wherein the factors are calculated from the at least one user-defined goal and the performance information." For the reasons described above with reference to claims 1 and 12, the combination of Eilert and Steere does not teach or suggest "determining an allocation request value", nor does the combination teach that "the [proportional, integral, and derivative] factors are calculated from the at least one user-defined goal and the performance information." Therefore, the combination does not teach or suggest all of the claim limitations as require for a proper rejection under 35 U.S.C. § 103(a). Accordingly, Appellant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of record.

While claims 19-20 contain subject matter that allows them to stand on their own, they also depend either directly or indirectly from, and inherit all of the limitations of independent claim 18, shown above to be allowable over the applied art. Therefore, claims 19-20 are asserted to allowable, at least, because of their dependence from claim 18.

9

E.   Claims 2 and 13

Claims 2 and 13 require that the proportional factor includes a proportional constant and a proportional variable, wherein the proportional constant is a user-selectable input, and the proportional variable is determined from the at least one user-defined goal and the performance information, the integral factor includes a integral constant and a integral variable, wherein the integral constant is a user-selectable input, and the integral variable is determined from the at least one user-defined goal and the performance information, and the derivative factor includes a derivative constant and a derivative variable, wherein the derivative constant is a user-selectable input, and the derivative variable is determined from the at least one user-defined goal and the performance information.

Applicant respectfully asserts that Steere does not disclose that each of the factors includes a constant and a variable, and where the constant is user-selectable and the variable is determined from user defined goal. The Appellee contends on page 3 of the Final Office Action that Steere discloses these limitations. Appellant respectfully disagrees. Appellee points to page 6, second column through page 7, first column as describing this limitation. The cited portion of Steere, however only recites that the "PID controller combines the magnitude of the summed pressures (P) with the integral (I) and the first derivative (D) of the function described by the summed progress pressures over time.: Steere, Page 6, column 2. Steere never discloses factors that constant and a variable, and where the constant is user-selectable and the variable is determined from user defined goal as required by claims 2 and 13.

As Steere does not describe at least these limitations, and Eilert is not relied upon as teaching these limitations, claims 2 and 13 are allowable over the combination of Steere and Eilert.

VIII.   CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A. As indicated above, the claims in Appendix A do include the amendments filed by Applicant on December 6, 2005.

IX.   EVIDENCE

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

X.   RELATED PROCEEDINGS

No related proceedings are referenced in II. above, or copies of decisions in related proceedings are not provided, hence no Appendix is included.
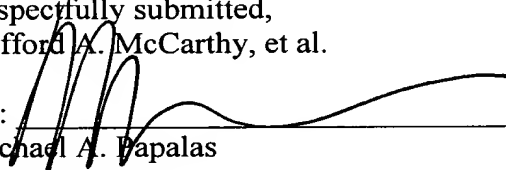
I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, Airbill No. EV568256440US in an envelope addressed to: MS Appeal Brief – Patents, Commissioner for Patents, Alexandria, VA 22313-1450.

Date of Deposit:	April 21, 2006
Typed Name:	Jan Cleveland
Signature:_____	

Respectfully submitted,
Clifford A. McCarthy, et al.

By:_____
Michael A. Papalas
Reg. No. 40,381
Attorney/Agent for Applicant
Date: April 21, 2006
Telephone No. (214) 855-8186

APPENDIX A

Claims Involved in the Appeal of Application Serial No. 09/493,753

1.   (Previously Amended) A system for managing allocation of computer resources among applications operating on a computer, based upon at least one user-defined goal for at least one application and application performance information related to the at least one application, the system comprising:

a calculator that determines an allocation request value using a proportional factor, an integral factor, and a derivative factor, wherein the factors are calculated from the at least one user-defined goal and the performance information; and

an arbiter that is operative to adjust the allocation request value into an adjusted allocation value when the allocation request value and allocation request values associated with other applications exceeds a predetermined value.

2.   (Previously Amended) The system of claim 1, wherein:

the proportional factor includes a proportional constant and a proportional variable, wherein the proportional constant is a user-selectable input, and the proportional variable is determined from the at least one user-defined goal and the performance information;

the integral factor includes a integral constant and a integral variable,

wherein the integral constant is a user-selectable input, and the integral variable is determined from the at least one user-defined goal and the performance information; and

the derivative factor includes a derivative constant and a derivative variable,

wherein the derivative constant is a user-selectable input, and the derivative variable is determined from the at least one user-defined goal and the performance information.

3.   (Previously Amended) The system of claim 2, wherein:

the proportional factor is $(KP \times P_i{}^*)$, wherein KP is the proportional constant and $P_i{}^*$ is the proportional variable, and $P_i{}^* = P_i - V_i.$, wherein P_i is performance information and V_i is the at least one user-defined goal;

the integral factor is $(KI \times I_i)$, wherein KI is the integral constant and I_i is the integral variable, and $I_i = (I_iold \times IH_i) + P_i{}^*$, I_iold is a previous value for I_i, and IH_i is an integral history constant which is a user-selectable input, and $P_i{}^*$ is the proportional variable; and

the derivative factor is $(KD \times D_i)$, wherein KD is the derivative constant and D_i is the derivative variable, and $D_i = (P_i{}^* - P_i{}^*old)/t$, wherein $P_i{}^*$ is the proportional variable, $P_i{}^*old$ is a previous value for $P_i{}^*$, and t is a time between the performance information used to calculate $P_i{}^*$ and previous performance information used to calculate $P_i{}^*old$.

4.   (Original) The system of claim 3, wherein:

the allocation request value, R_i, is determined by $R_i = (KP \times P_i{}^*) + (KD \times D_i) + (KI \times I_i) + R_iold$, wherein R_iold is a previous value for R_i.

5.   (Previously Amended) The system of claim 1, wherein a number format for each of the at least one user-defined goal, the performance information, and the allocation request value is selected from the group consisting of:

a floating point number, and an integer number.

6.   (Original) The system of claim 1, wherein the allocation request value is a floating point number, the system further comprising:

a rounder that uses cumulative rounding to adjust the floating point allocation request value into an integer number.

7.   (Previously Amended) The system of claim 1, wherein:

the performance information is generated by a performance monitor that monitors a characteristic of the application associated with the at least one user-defined goal.

8.   (Original) The system of claim 1, wherein:

the allocation request value is used by a process resource manager to allocate computer processing resources among the applications operating on the computer.

9.   (Previously Amended) The system of claim 1, wherein the at least one application is one of a plurality of applications, and each application of the plurality has an associated user-selectable priority and an allocation request value, wherein:

the arbiter determines whether each application of the plurality of applications having the same priority can be allocated resources to equal its associated allocation request value, if so, then the arbiter forms the adjusted allocation request value for each application by equaling the adjusted allocation request value to the allocation request value, and if not, then the arbiter determines whether each application of the plurality of applications having the same priority can be allocated resources to equal a target value.

10.   (Original) The system of claim 9, wherein:

the target value is selected by the arbiter from the lowest of a previously allocated request value, which has not been previously selected as a target value, and an allocation request value of an application of the plurality of applications having the same priority, which has not been previously selected as a target value.

11.   (Original) The system of claim 9, wherein:

the arbiter forms the adjusted allocation request value for each application by equaling the adjusted allocation request value to the target value, if the arbiter determines that each application of the plurality of applications having the same priority can be allocated resources to equal the target value.

12.   (Previously Amended) A computer program product having a computer readable medium having computer program logic recorded thereon for managing allocation of computer resources among applications operating on a computer, based upon at least one user-defined goal for at least one application and application performance information related to the at least one application, the computer program product comprising:

code for determining an allocation request value using a proportional factor, an integral factor, and a derivative factor, wherein the factors are calculated from the at least one user-defined goal and the performance information; and

code for adjusting the allocation request value, and is operative when the allocation request value and allocation request values associated with other applications exceeds a predetermined value.

13.   (Previously Amended) The computer program product of claim 12, wherein:

the proportional factor includes a proportional constant and a proportional variable, wherein the proportional constant is a user-selectable input, and the proportional variable is determined from the at least one user-defined goal and the performance information;

the integral factor includes a integral constant and a integral variable,

wherein the integral constant is a user-selectable input, and the integral variable is determined from the at least one user-defined goal and the performance information; and

the derivative factor includes a derivative constant and a derivative variable,

wherein the derivative constant is a user-selectable input, and the derivative variable is determined from the at least one user-defined goal and the performance information.

14.   (Previously Amended) The computer program product of claim 13, wherein:

the proportional factor is $(KP \times P_i{}^*)$, wherein KP is the proportional constant and $P_i{}^*$ is the proportional variable, and $P_i{}^* = P_i - V_i.$, wherein P_i is performance information and V_i is the at least one user-defined goal;

the integral factor is $(KI \times I_i)$, wherein KI is the integral constant and I_i is the integral variable, and $I_i = (I_i old \times IH_i) + P_i{}^*$, $I_i old$ is a previous value for I_i, and IH_i is an integral history constant which is a user-selectable input, and $P_i{}^*$ is the proportional variable; and

the derivative factor is $(KD \times D_i)$, wherein KD is the derivative constant and D_i is the derivative variable, and $D_i = (P_i{}^* - P_i{}^* old)/t$, wherein $P_i{}^*$ is the proportional variable, $P_i{}^* old$ is a previous value for $P_i{}^*$, and t is a time between the performance information used to calculate $P_i{}^*$ and previous performance information used to calculate $P_i{}^* old$.

15.   (Original) The computer program product of claim 14, wherein:

the allocation request value, R_i, is determined by $R_i = (KP \times P_i{}^*) + (KD \times D_i) + (KI \times I_i) + R_i old$, wherein $R_i old$ is a previous value for R_i.

16.   (Previously Amended) The computer program product of claim 12, wherein the at least one application is one of a plurality of applications, and each application of the plurality has an associated user-selectable priority, wherein the code for adjusting the allocation request value comprises:

code for determining whether each application of the plurality of applications having the same priority can be allocated resources to equal its associated allocation request value, if so, then the adjusted allocation request value for each application is formed by equaling the adjusted allocation request value to the allocation request value, and if not, then whether each application of the plurality of applications having the same priority can be allocated resources to equal a target value is determined;

wherein the target value is selected from the lowest of a previously allocated request value, which has not been previously selected as a target value, and an allocation request value of an application of the plurality of applications having the same priority, which has not been previously selected as a target value.

17.   (Original) The computer program product of claim 16, wherein the code for adjusting the allocation request value further comprises:

code for forming the adjusted allocation request value for each application by equaling the adjusted allocation request value to the target value, if each application of the plurality of applications having the same priority can be allocated resources to equal the target value.

18.   (Previously Amended) A method for managing allocation of computer resources among applications operating on a computer, based upon at least one user-defined goal for at least one application and application performance information related to the at least one application, the method comprising the steps of:

determining an allocation request value using a proportional factor, an integral factor, and a derivative factor, wherein the factors are calculated from the at least one user-defined goal and the performance information; and

adjusting the allocation request value, when the allocation request value and allocation request values associated with other applications exceeds a predetermined value.

19.   (Previously Amended) The method of claim 18, wherein the at least one application is one of a plurality of applications, and each application of the plurality has an associated user-selectable priority, wherein the step of adjusting the allocation request value comprises the step of:

determining whether each application of the plurality of applications having the same priority can be allocated resources to equal its associated allocation request value, if so, then the adjusted allocation request value for each application is formed by equaling the adjusted allocation request value to the allocation request value, and if not, then whether each application of the plurality of applications having the same priority can be allocated resources to equal a target value is determined,

wherein the target value is selected from the lowest of a previously allocated request value, which has not been previously selected as a target value, and an allocation request value of an application of the plurality of applications having the same priority, which has not been previously selected as a target value.

20.   (Original) The method of claim 19, wherein the step of adjusting the allocation request value further comprises the step of:

forming the adjusted allocation request value for each application by equaling the adjusted allocation request value to the target value, if each application of the plurality of applications having the same priority can be allocated resources to equal the target value.
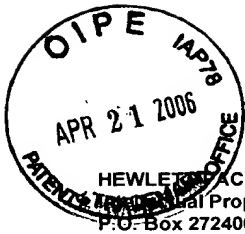
HEWLETT PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. ___10992091-1___

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):	Clifford A. McCarthy et al.	Confirmation No.:	2627
Application No.:	09/493,753	Examiner:	K. Tang
Filing Date:	January 28, 2000	Group Art Unit:	2195

Title: DYNAMIC MANAGEMENT OF COMPUTER WORKLOADS THOUGH SERVICE LEVEL OPTIMIZATION

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on _____2/21/06_____ .

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) $500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐(a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month $120   ☐ 2nd Month $450   ☐ 3rd Month $1020   ☐ 4th Month $1590

☐ The extension fee has already been filed in this application.

☒(b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of __$ 500__ . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

☒ I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, Airbill No. EV568256440US in an envelope addressed to: MS Appeal Brief - Patents, Commissioner for Patents, Alexandria, VA 22313-1450

Date of Deposit: April 21, 2006

Typed Name: Jan Cleveland

Signature: _Jan Cleveland_

Respectfully submitted,

Clifford A. McCarthy et al.

By_____

Michael A. Papalas

Attorney/Agent for Applicant(s)

Reg No. : 40,381

Date : April 21, 2006

Telephone : 214-855-8186

Rev 10/05 (AplBrief)